

DESCRIPTION

ELECTRO-OPTIC FILAMENT OR FIBRE

This application is a National Filing pursuant to 35 U.S.C. 371 based upon International Application No. PCT/IB03/05936, filed December 8, 2003.

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This invention relates to an electro-optic filament or fibre, especially one that is suitable for inclusion in a fabric or a garment with the aim of producing optically detectable effects therein.

The last 30 years have seen wide-ranging research and development in electro-optic displays. This work has been so extensive that such displays are now commonplace in a wide range of everyday items such as laptop computers, photocopiers, printers, handheld devices (such as "personal digital assistants"), telephones, media-reading machines such as CD players and DVD players, portable televisions and retail point-of-sale devices. The invention is useable in all such displays, and in a wide variety of further devices including but not limited to those disclosed hereinbelow.

For a considerable part of the last 30 years the research effort has focused on producing flat, rigid displays that in use appear substantially two-dimensional to the viewer.

One reason for the historical emphasis on flat, rigid displays derives from the popularity of liquid crystal materials in such displays.

The liquid state of such materials has led to a tradition of confining liquid crystal material between glass plates, in order to maintain structural integrity of a display after manufacture. Also the known liquid crystal display structures can be made in a reliable fashion if produced in this manner.

Latterly, however, there has been growing interest in the subject of flexible displays.

Such displays are potentially foldable, whereby for example the display screen of a device such as a laptop computer is storable in a considerably smaller space than the currently known displays.

Also a flexible display can conform to the contours of an irregularly shaped substrate. This opens the possibility of locating displays in a wide